

FIGURE 1

196x.seq	1	60
Mcomm.seq	GT.....TAGCTCAGATTGAACGCTGGCGGCAGGCTTAAACACATGC	
	NAAACTGAAGAGTTTGATCATGGCTCAGATTGAACGCTGGCGGCAGGCTTAA.CACATGC	
196x.seq	61	120
Mcomm.seq	AAGTCGAGCGGTAACAGGGG.AGCTTGCTCCT.GCTGACGAGCGCGGCACGGGTGAGTAA	
	AAGTCGAGCGGTAACATTGCTAGCTTGCTAGAGATGACGAGCGCGGCAGGGTGAGTAA	
196x.seq	121	180
Mcomm.seq	CGCGTAGGAATCTGCCTAGTAGAGGGGGACAACATGTGGAACGSCATGCTAATACCGCAT	
	CGCGTAGGAATCTGCCTAGTAGTGGGGGACAACATGTGGAACGSCATGCTAATACCGCAT	
196x.seq	181	240
Mcomm.seq	ACGCCCTGAGGGGGAAAGGAGGGGACTCTTCGGAGCCTTCGCTATTAGATGAGCCTGCG	
	ACGCCCTACGGGGGAAAGGAGGGNN.TCTTCGGA.CCTTTCGCTATTAGATGAGCCTGCG	
196x.seq	241	300
Mcomm.seq	TGAGATTAGCTAGTTGGTAGGGTAAAGGCCTACCAAGGCGACGATCTCTAACTGGTCTGA	
	TGAGATTAGCTAGTTGGTAGGGTAAAGGCCTACCAAGGCGACGATCTCTAGCTGGTCTGA	
196x.seq	301	360
Mcomm.seq	GAGGATGACCAGTCACACTGGGACTGAGACACGGCCAGACTCCTACGGGAGGCAGCAGT	
	GAGGATGATCAGCCACACTGGGACTGAGACACGGCCAGACTCCTACGGGAGGCAGCAGT	
196x.seq	361	420
Mcomm.seq	GGGGAATATTGGACAATGGGCGCAAGCCTGATCCAGCCATGCCGCGTGTGTGAAGAAGGC	
	GGGGAATATTGGACAATGGGCGCAAGCCTGATCCAGCCATGCCGCGTGTGTGAAGAAGGC	
196x.seq	421	480
Mcomm.seq	CTTAGGGTTGTAAAGCACTTTCAGGGGTGAGGAAGGGTGATAGGTTAATACGTTATCATC	
	CTTAGGGTTGTAAAGCACTTTCAGGAGTGAGGAAGGGCGTATAGTTAATACCTGTATGTT	
196x.seq	481	540
Mcomm.seq	TTGACGTTAGCCCCAGAAGAAGCACCGGCTAACTCTGTGCCAGCAGCCGCGGTAATACAG	
	TTGACGTTAATCCAGAAGAAGCACCGGCTAACTCTGTGCCAGCAGCCGCGGTAATACAG	
196x.seq	541	600
Mcomm.seq	AGGGTGCAAGCGTTAATCGGAATTACTGGGCGTAAAGCGCGCTAGGTGGTTTGTAAAGT	
	AGGGTGCGAGCGTTAATCGGAATTACTGGGCGTAAAGCGCGCTAGGCGGTTTGTAAAGT	
196x.seq	601	660
Mcomm.seq	CGGATGTGAAATCCCAGGGCTCAACCTTGGAATGGCACCCGATACTGGCTAGCTAGAGTA	
	CGGATGTGAAATCCCAGGGCTCAACCTTGGAATGGCACCCGATACTGGCAGGCTAGAGTA	
196x.seq	661	720
Mcomm.seq	TGGTAGAGGGGTGTGGAATTTCTGTGTAGCGGTGAAATGCGTAGATATAGGAAGGAACA	
	CGGTAGAGGGGTGTGGAATTTCTGTGTAGCGGTGAAATGCGTAGATATAGGAAGGAACA	
196x.seq	721	780
Mcomm.seq	TCAGTGGCGAAGGCGACACCTGGACTAATACTGACACTGAGGTGCGAAAGCGTGGGGAG	
	TCAGTGGCGAAGGCGACACCTGGACCGATACTGACGCTGAGGTGCGAAAGCGTGGGGAG	
196x.seq	781	840
Mcomm.seq	CAAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAACGATGTCTACTAGCCGTTGGGT	
	CAAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAACGATGTCTACTAGCCGTTGGGT	
196x.seq	841	900
Mcomm.seq	.TGTAATGACTTAGTGCGCAGCTAACGCAATAAGTAGACCGCTGGGGAGTACGGCCGC	
	ATNTATTTCTTTAGTGCGCAGCTAACGCGATAAGTAGACCGCTGGGGAGTACGGCCGC	
196x.seq	901	960
Mcomm.seq	AAGGTTAAAACTCAAATGAATTGACGGGGGGCCGCACAAGCGGTGGAGCATGTGGTTTAA	
	AAGGTTAAAACTCAAATGAATTGACGGGGGGCCGCACAAGCGGTGGAGCATGTGGTTTAA	
196x.seq	961	1020
Mcomm.seq	TTGGAAGCAACGCGAAGAACCTTACCTACTCTTGACATCCACAGAACATTTAGAGATCA	
	TTGGAANNAACGCGAAGAACCTTACCTACTCTTGACATCCAGAGAACTTTCAGAGATGA	

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1021                                     1080
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1081                                     1140
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1141                                     1200
196x.seq GGTGGGAACTTTAAGGAGACTGCCGGTGACAAACCGGAGGAAGGTGGGGACGACGTCGAAG
Mcomm.seq GGTGGNAACTCTAAGGAGACTGCCGGTGACAAACCGGAGGAAGGTNGGNCGACGTCGAAG

1201                                     1260
196x.seq TCATCATGGCCCTTACGAGTAGGGCTACACACGTGCTACAATGGCGTATACAGAGGGCTG
Mcomm.seq TCATCATGGCCCTTACGAGTAGGGCTACACACGTGCTACAATGGCGTATACAGAGGGCAG

1261                                     1320
196x.seq CAAGCTAGCGATAGTGAGCGAATCCCAAAAGTACGTCGTAGTCCGGATTGGAGTCTGCA
Mcomm.seq CGAACTCGCGAGGGTAAGCAAATCCCAAAAAGTACGTCGTAGTCCGGATTGGAGTCTGCA

1321                                     1380
196x.seq ACTCGACTCCATGAAGTCGGAATCGCTAGTAATCGTGAATCAGAATGTCACGGTGAATAC
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1381                                     1440
196x.seq GTTCCCGGGCCTTGTTACACACCGCCCGTCACACCATGGGAGTTGATTGCTCCAGAAGTAG
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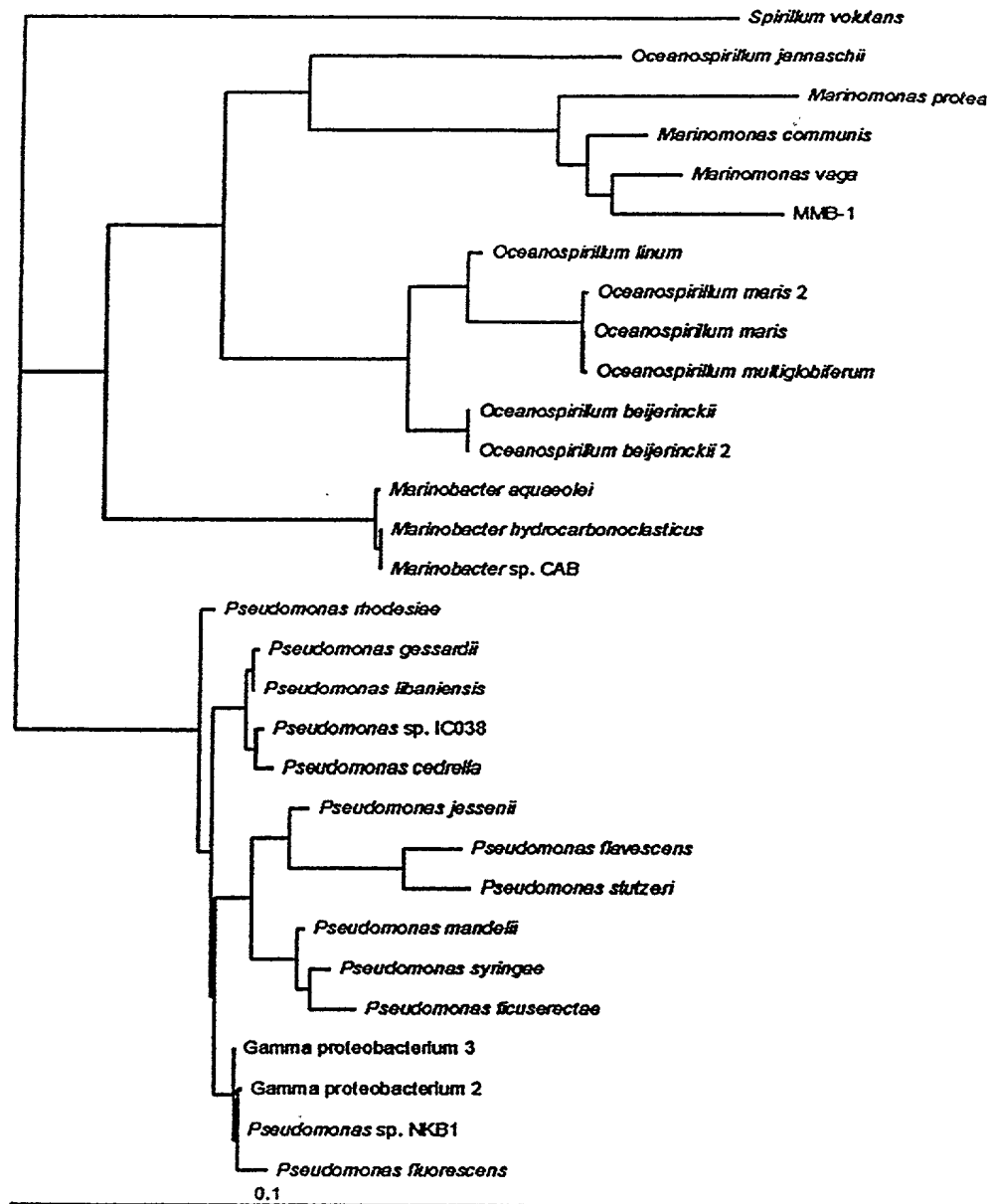
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Mcomm.seq CTAGCTTAACCTNC..GGGATGGCGGTTACCACGGAGTGGTCAATGA.....

1501
196x.seq CTACGCG
Mcomm.seq .....

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Figure 1 (cont)

FIGURE 2



1 GCCCTTGCTCAGATTGAACGCTGGCGGCAGGCCT.AACACATGCAAGTCG 49
| | | | | | | | | | | | | | | | | | | | | |
1 ..gttagctcagattgaacgctggcggcaggcttaaacacatgcaagtgcg 48

50 AGCGGT.AGAGAGAAGCTTGCTTCTCTTGA.GAGCGGCGGACGGGTGAGT 97
| | | | | | | | | | | | | | | | | | | | | |
49 agcggtaacaggggagcttgctcctgctgacgagcggcgacgggtgagt 98

98 AATGCCTAGGAATCTGCCTGGTAGTGGGGGATAACGTTTCGAAACGGACG 147
| | | | | | | | | | | | | | | | | | | | | |
99 aacgcgtaggaatctgcctagtagagggggacaacatgtggaacgcgatg 148

148 CTAATACCGCATACGTCCTACGGGAGAAAGCAGGGGA..CCTTCGGGCCT 195
| | | | | | | | | | | | | | | | | | | | | |
149 ctaataccgcatacgcacctgagggggaaaggaggggactcttcggagcct 198

196 TGC GCTATCAGATGAGCCTAGGTCGGATTAGCTAGTTGGTGAGGTAATGG 245
| | | | | | | | | | | | | | | | | | | | | |
199 tccgctattagatgagcctgcgtgagattagctagttggtagggtaaagg 248

246 CTCACCAAGGCGACGATCCGTA ACTGGTCTGAGAGGATGATCAGTCACAC 295
| | | | | | | | | | | | | | | | | | | | | |
249 cctaccaaggcgacgatctctaactggtctgagaggatgaccagtcacac 298

296 TGGA ACTGAGACACGGTCCAGACTCCTACGGGAGGCAGCAGTGGGGAATA 345
| | | | | | | | | | | | | | | | | | | | | |
299 tgggactgagacacggcccagactcctacgggaggcagcagtggggaata 348

346 TTGGACAATGGGCGAAAGCCTGATCCAGCCATGCCGCGTGTGTGAAGAAG 395
| | | | | | | | | | | | | | | | | | | | | |
349 ttggacaatgggcgcaagcctgatccagccatgccgcggtgtgtgaagaag 398

396 GTCTTCGGATTGTAAAGCACTTTAAGTTGGGAGGAAGGGTTGTAGATTAA 445
| | | | | | | | | | | | | | | | | | | | | |
399 gccttaggggttghtaaagcactttcaggggtgaggaagggtgataggttaa 448

446 TACTCTGCAATTTTGACGTTACCGACAGAATAAGCACCGGCTAACTCTGT 495
| | | | | | | | | | | | | | | | | | | | | |
449 tacgttatcatcttgacgttagccccagaagaagcaccggctaactctgt 498

496 GCCAGCAGCCGCGGTAATACAGAGGGTGCAAGCGTTAATCGGAATTACTG 545
|||||
499 gccagcagccgcggttaatacagaggggtgcaagcgттаатсггааттаctg 548

546 GGCGTAAAGCGCGCGTAGGTGGTTTGTТАAGTTGGATGTGAAATCCCCGG 595
|||||
549 ggcgtaaagcgcgcgtaggtggtttgттаagtcggatgtgaaatcccagg 598

596 GCTCAACCTGGGAAGTGCATTCAAACTGACTGACTAGAGTATGGTAGAG 645
|||||
599 gctcaaccttggaatggcaccgcgatactggctagctagagtatggtagag 648

646 GGTGGTGAATTTCTGTGTAGCGGTGAAATGCGTAGATATAGGAAGGAA 695
||
649 ggggtgtggaattttcctgtgtagcggtgaaatgcgtagatataggaaggaa 698

696 CACCAGTGGCGAAGGCGACCACCTGGACTAATACTGACACTGAGGTGCGA 745
||
699 catcagtggcgaaggcgacaccctggactaatactgacactgaggtgcga 748

746 AAGCGTGGGGAGCAAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAA 795
|||||
749 aagcgtggggagcaaacaggattagataccctggtagtccacgccgtaaa 798

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796 CGATGTCAACTAGCCGTTGGAAGCCTTGAGCTTTTAGTGGCGCAGCTAAC 845
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
799 cgatgtctactagccgttg..gttgtaatgacttagtgggcgagctaac 846

846 GCATTAAGTTGACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAAT 895
    ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
847 gcaataagtagaccgcctgaggagtagcgccgcaagggttaaaactcaaat 896

896 GAATTGACGGGGGCCCCGCACAAGCGGTGGAGCATGTGGTTTAATTCGAAG 945
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
897 gaattgacgggggccccgcacaagcggtagagcatgtggtttaattcgaag 946

946 CAACGCGAAGAACCTTACCAGGCCTTGACATCCAATGAACTTTCTAGAGA 995
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
947 caacgcaagaaccttacctactcttgacatccacagaacatttgagaga 996

996 TAGATTGGTGCCTTCGGAACATTGAGACAGGTGCTGCATGGCTGTCGTC 1045
    | ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
997 tcagatggtgccttcgggaactgtgagacaggtgctgcatggctgtcgtc 1046

1046 AGCTCGTGTTGTGAAATGTAAGGGC..... 1070
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
1047 agctcgtgttggtgaaatgttggttaagtcccgtaacgagcgcaaccctt 1096

```

FIGURE 4

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      10      20      30      40      50
Isolate 20  GCCCTTGCTCAGATTGAACGCTGGCGGCAGGCCTAACACATGCAAGTCGAGC
              : : : : : : : : : : : : : : : : : : : : : : : : : : : :
P. synx AGAGTTTGATCTTGGCTCAGATTGAACGCTGGCGGCAGGCCTAACACATGCAAGTCGAGC
      10      20      30      40      50      60

      60      70      80      90     100     110
GGTAGAGAGAAGCTTGCTTCTCTTGAGAGCGGCGGACGGGTGAGTAATGCCTAGGAATCT
: : : : : : : : : : : : : : : : : : : : : : : : : : : :
GGTAGAGAGAAGCTTGCTTCTCTTGAGAGCGGCGGACGGGTGAGTAATGCCTAGGAATCT
      70      80      90     100     110     120

      120     130     140     150     160     170
GCCTGGTAGTGGGGGATAACGTTTCGGAACGGACGCTAATACCGCATACGTCCTACGGGA
: : : : : : : : : : : : : : : : : : : : : : : : : : : :
GCCTGGTAGTGGGGGATAACGTTTCGGAACGGACGCTAATACCGCATACGTCCTACGGGA
      130     140     150     160     170     180

      180     190     200     210     220     230
GAAAGCAGGGGACCTTCGGGCCTTGCGCTATCAGATGAGCCTAGGTTCGGATTAGCTAGTT
: : : : : : : : : : : : : : : : : : : : : : : : : : : :
GAAAGCAGGGGACCTTCGGGCCTTGCGCTATCAGATGAGCCTAGGTTCGGATTAGCTAGTT
      190     200     210     220     230     240

      240     250     260     270     280     290
GGTGAGGTAATGGCTCACCAAGGCGACGATCCGTAACGGTCTGAGAGGATGATCAGTCA
: : : : : : : : : : : : : : : : : : : : : : : : : : : :
GGTGAGGTAATGGCTCACCAAGGCGACGATCCGTAACGGTCTGAGAGGATGATCAGTCA
      250     260     270     280     290     300

      300     310     320     330     340     350
CACTGGAACCTGAGACACGGTCCAGACTCCTACGGGAGGCAGCAGTGGGGAATATTGGACA
: : : : : : : : : : : : : : : : : : : : : : : : : : : :
CACTGGAACCTGAGACACGGTCCAGACTCCTACGGGAGGCAGCAGTGGGGAATATTGGACA
      310     320     330     340     350     360

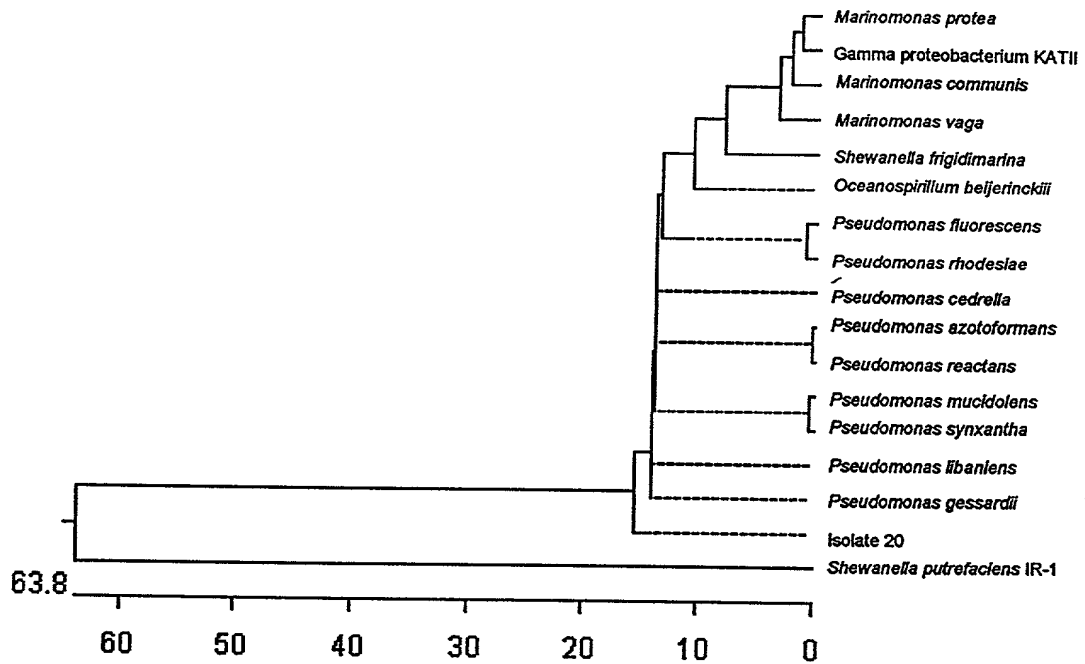
      360     370     380     390     400     410
ATGGGCGAAAGCCTGATCCAGCCATGCCGCGTGTGTGAAGAAGGTCTTCGGATTGTAAAG
: : : : : : : : : : : : : : : : : : : : : : : : : : : :
ATGGGCGAAAGCCTGATCCAGCCATGCCGCGTGTGTGAAGAAGGTCTTCGGATTGTAAAG
      370     380     390     400     410     420

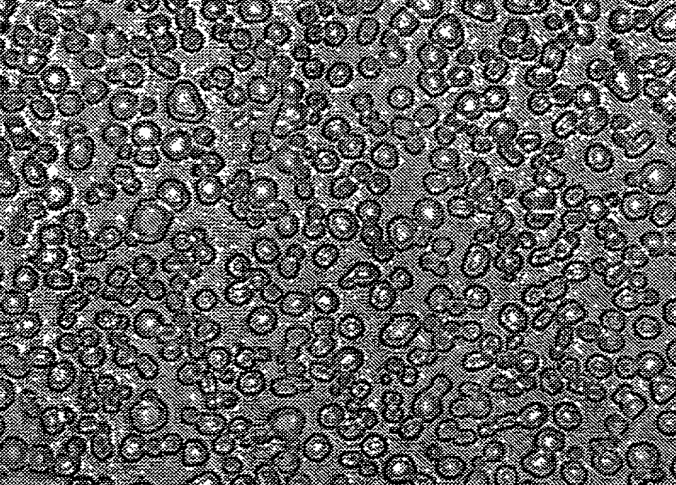
      420     430     440     450     460     470
CACTTTAAGTTGGGAGGAAGGGTTGTAGATTAACTCTGCAATTTTGACGTTACCGACA
: : : : : : : : : : : : : : : : : : : : : : : : : : : :
CACTTTAAGTTGGGAGGAAGGGTTGTAGATTAACTCTGCAATTTTGACGTTACCGACA
      430     440     450     460     470     480

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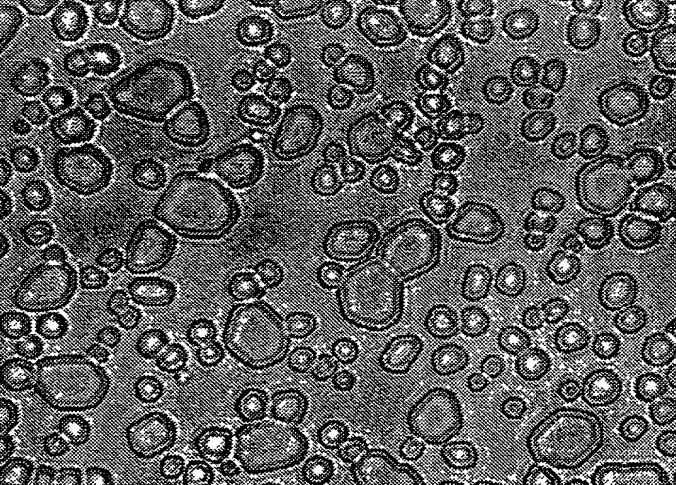

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FIGURE 5





A high-magnification micrograph showing a dense, uniform distribution of circular features, likely droplets or domains, in a polymer blend. The features are roughly spherical and vary slightly in size. A scale bar in the bottom right corner indicates 10 μm.



A grayscale micrograph showing a dense distribution of dark, rounded, and irregularly shaped particles dispersed within a lighter, textured matrix. The particles vary significantly in size, with some appearing as small dots and others as larger, more complex shapes. The overall appearance is similar to a colloidal dispersion or a composite material. In the bottom right corner, there is a scale bar labeled "10 μm".

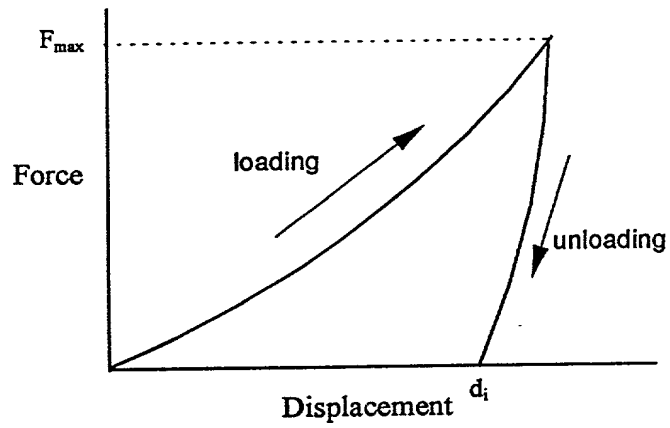
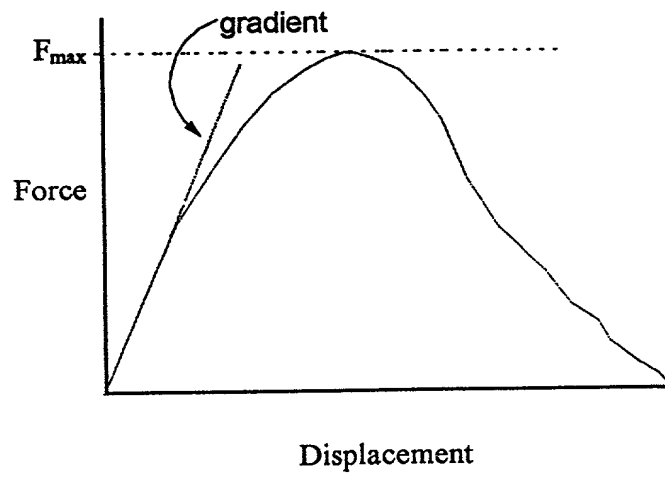
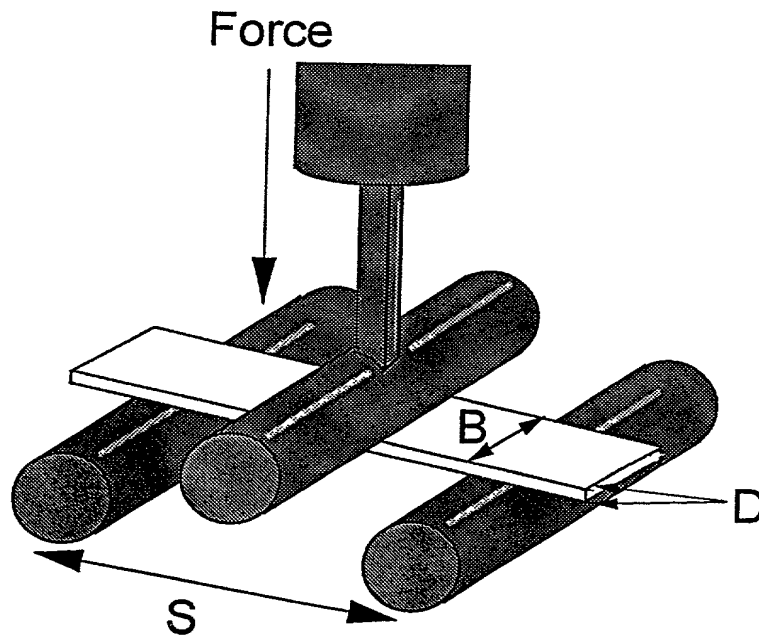
Figure 7Figure 8

Figure 9: The 3-point bend test



Span (S)	30 mm
Depth (D)	~2 mm
Width (B)	10 mm